UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,379	09/25/2001	Anand Srinivasan	P 282961 13530RO	5477

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ART UNIT	PAPER NUMBER
2113	

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 September 2001</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-47</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-9 and 14-47</u> is/are rejected.

7) ☒ Claim(s) <u>10-13</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>25 September 2001</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities: On page 1,

paragraph 2, the serial number for the co-pending U.S. patent application is needed. Appropriate

correction is required.

Allowable Subject Matter

2.   Claims 10-13 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

4.   Claims 15-23 and 39-45 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

As in claim 15, lines 2-3, it is not clear to which "said message" refers to with regard to claim 14 (message received from a different server after the sending step or message received from a different server after the master server is detected functional?).

As in claim 16-23, these claims are rejected due to the fact that they depend from claim 15.

As in claim 39, lines 3-4, it is not clear to which "said message" refers to with regard to claim 38 (message received from a different server after the sending step or message received from a different server after the master server is detected functional?).

As in claim 40-45, these claims are rejected due to the fact that they depend from claim 39.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

6.   Claims 1-9, 14, 24-38, 46 and 47 are rejected under 35 U.S.C. 102(e) as being anticipated

by Basani et al. (6,748,447).

        As in claims 1, 26 and 30, Basani discloses a method for operating a fault tolerant server

group in client-server distributed dynamic network systems that comprises receiving, by a master

server (group leader) in a fault tolerant server group, a request sent by a client (user), wherein the

fault tolerant server group comprises the master server and at least one back-up server (backend

server), and wherein the master server communicates with both the client and the at least one

back-up server (Figure 1, column 1: line 39 –column 2: line 6, column 5: lines 36-50, column 8:

lines 24-40). Basani also discloses wherein each server in the server group, including the master

server and the at least one back-up server, have an election mechanism enabling the fault tolerant

server group to elect a new master server, when the master server fails (is dead), in a process in

which at least some of the election mechanisms are triggered at different times (i.e., a preset time

is allocated for responses from other servers which implies that other servers can send LC

messages at different times) (column 13: line 58 – column 14: line 42). Basani also discloses

processing, by the fault tolerant server group, the request to produce a result, wherein the request

is processed concurrently by the master server and the at least one back-up server, and sending,

by the master server, the result to the client (Figure 1, column 5: lines 36-50, column 8: lines 24-40).

As in claims 2 and 31, Basani discloses determining, by the election mechanism running on the at least one back-up server, whether the master server is functional (column 14: lines 5-42), and electing a new master server for the fault-tolerant server group when the master server fails, wherein the electing being performed based on at least one election periodic timer associated with the at least one back-up server (which sets the preset time period), and wherein the new master assumes the mastership and communicates with the client and other servers in the fault tolerant server group (Figure 1, column 14: lines 5-42).

As in claims 3, 28 and 32, Basani discloses a method for operating an election mechanism that comprises detecting, by at least one back-up server (backend server), when a master server (group leader) is not functional, wherein the master server processes the mastership of a server group, and wherein the server group comprises the master server and the at least one back-up server (Figure 1, column 5: lines 36-50, column 14: lines 5-42). Basani also discloses electing, when the master server is detected not functional, a new master server based on at least one election periodic timer, wherein each of the at least one election periodic timer is associated with a different server in the server group (each server sets a preset time period) and causes the electing to occur at different times (i.e., a preset time is allocated for responses from other servers which implies that other servers can send LC messages at different times) for at least

some of the servers, wherein the new master server takes over the mastership (Figure 1, column 14: lines 5-42).

As in claims 4 and 33, Basani discloses sending, by each of the back-up server, at least one inquiry (ping) message to the master server (column 21: lines 18-31), examining, by the at least one back-up server, whether a reply, from the master server as a response to the at least one inquiry message, is received within a certain amount of time (column 14: lines 5-42, column 21: lines 18-31), determining that the master server is not functional if the reply is not received from the master server within a certain amount of time (column 14: lines 5-42), and determining that the master server is functional if the reply is received from the master server within the certain amount of time (column 14: lines 5-42).

As in claims 5 and 34, Basani discloses initializing a time-out mechanism after the sending, wherein the time-out mechanism includes a time-out condition that defines the certain amount of time, and wherein the time-out mechanism starts to count time towards the time-out condition after the initializing (column 14: lines 5-42).

As in claims 6, 29 and 35, Basani discloses wherein the electing comprises selecting one of the at least one back-up server as the new master server, wherein the selecting is carried out based on the at least one election periodic timer and updating said mastership based on said new master server (column 14: lines 5-42).

As in claims 7 and 36, Basani discloses wherein the selecting comprises setting the state

of a back-up server, whose master server is detected not functional, to be a waiting state (i.e., the

server must wait until the preset time period expires) (column 14: lines 5-42). Basani also

discloses initializing an election periodic timer associated with the back-up server, wherein the

election periodic timer specifies a particular length of time defined for the back-up server, and

declaring, by the back-up server, the back-up server as the new master server, if no message

from a different server is received during the particular length of time (column 14: lines 5-42).

As in claims 8 and 37, Basani discloses wherein the declaring comprises setting the state

of the back-up server to be master, and sending a first message (leader claim message (LC)

(column 14: line 5 – column 15: line 38) to the at least one back-up server and the master server,

wherein the first message declaring the back-up server as the new master server.

As in claim 9, Basani discloses wherein the particular length of time (preset time)

specified by said election periodic timer is an election delay time associated with the back-up

server (column 14: lines 5-42).

As in claims 14 and 38, Basani discloses wherein the declaring further comprises

receiving a message from a different server after the sending (i.e., receiving an LC message from

another server after the preset time has expired) (column 14: line 5 – column 15: line 38), and the

detecting comprises receiving a message from a different server after the master server is

detected functional (i.e., receiving an LC message from another server before the preset time has

expired) (column 14: line 5 – column 15: line 38).

As in claims 24 and 46, Basani discloses triggering the detecting based on a detection

periodic timer (column 14: lines 5-42).

As in claims 25 and 47, Basani discloses wherein the detection periodic timer includes an

equally periodic timer (column 14: lines 5-42).

As in claim 27, Basani discloses a name server for registering the mastership of the

master server (column 4: lines 33-48).

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's
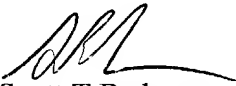
disclosure.

See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Scott T Baderman whose telephone number is (703) 305-4644.

The examiner can normally be reached on Monday-Friday, 6:45 AM-4:15 PM, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Scott T Baderman
Primary Examiner
Art Unit 2113

STB